

REMARKS

In the Office Action of November 13, 2008, the specification was objected to because the limitation “*computer readable medium*” in claim 14 allegedly does not have any antecedent in the specification. In addition, claims 1-4 and 9-12 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent Application Number 2003/0179220 A1 (“Dietrich”) in view of U.S. Patent Number 6,567,095 (“Wood”). In addition, claims 5-8, 13 and 14 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Dietrich in view of Wood, U.S. Patent Application Number 2001/0012018 A1 (“Hayhurst”), U.S. Patent Number 6,269,175 (“Hanna et al. #1”), U.S. Patent Application Number 2001/0036307 A1 (“Hanna et al. #2”), and/or U.S. Patent Application Number 2003/0145008 A1 (“Burrell”).

With respect to the objection to the specification, Applicants have canceled claim 14. As such, Applicants respectfully request that the objection to the specification be withdrawn.

With respect to the Section 103 rejections of claims 1-13, Applicants respectfully assert that the independent claims 1 and 9 are not obvious in view of the cited references of Dietrich and Wood, as explained below. In view of the claim amendments and the following remarks, Applicants respectfully request that the pending claims 1-13 be allowed.

A. Patentability of Independent Claims 1 and 9

The independent claim 1 recites in part “*a rasterizer configured to transverse a surface grid over a surface of a primitive of a 3D image for all N different views of said 3D image such that transversing is performed once for said 3D image*” and “*N screen space resamplers, each of said screen space resamplers being configured to resample the shaded color sample determined by said shader unit according to one of*

the N different views such that resampling is performed N times in parallel for said 3D image,” which are not disclosed in the cited references of Dietrich and Wood.

Thus, the independent claim 1 is not obvious in view of the cited references of Dietrich and Wood. As such, Applicants respectfully request that the independent claim 1 be allowed.

The Office Action on page 3 states that Dietrich discloses “a rasterizer configured [to transverse] a surface grid over a surface of a primitive of a 3D image (Dietrich, Page 3, Paragraph[0047], lines 3-5, Paragraph [0048], lines 1-2, and Page 4, line 1) for all N different views of said 3D image such that transversing is performed once for said 3D image (Dietrich, Page 4. Paragraph [0048], lines 1-3).” Applicants respectfully disagree.

First of all, paragraph [0047], lines 3-5, and paragraph [0048], lines 1-2, of Dietrich describes the geometry stage 151 of a graphics system 100, not the rasterizer 152 of the graphics system 100. Thus, these cited passages of Dietrich fail to disclose the claim limitation of “*a rasterizer configured to transverse a surface grid over a surface of a primitive of a 3D image,*” as alleged in the Office Action. Applicants note that Dietrich does disclose in paragraph [0048], lines 2-3 (which includes page 4, line 1) that “[t]he rasterizer 152 computes a fragment for each pixel covered by each of the primitives.” However, there is no mention in this cited passage of Dietrich of “transversing,” “a surface grid” and “a surface of a primitive of a 3D image.” Thus, this passage of Dietrich clearly fails to disclose that the rasterizer 152 is “*configured to transverse a surface grid over a surface of a primitive of a 3D image,*” as recited in the independent claim 1.

Furthermore, paragraph [0048], lines 1-3, of Dietrich merely states that “[t]he transformed vertices form the input for a rasterizer 152” and that “[t]he rasterizer 152 computes a fragment for each pixel covered by each of the primitives.” There is no mention in this cited passage of Dietrich of “different views of a 3D image” or that “transversing is performed once for the 3D image.” Thus, this cited passage of Dietrich clearly does not disclose “*a rasterizer configured to transverse a surface grid over a surface of a primitive of a 3D image for all N different views of said 3D image such that transversing is performed once for said 3D image*” (emphasis added), as

recited in the independent claim 1. Therefore, Dietrich fails to disclose the limitation of “*a rasterizer configured to transverse a surface grid over a surface of a primitive of a 3D image for all N different views of said 3D image such that transversing is performed once for said 3D image,*” as recited in the independent claim 1.

The Office Action on page 3 further states that Dietrich discloses “N screen space resamplers (Dietrich, Page 4, Paragraph [0049], lines 9-10), each of said screen space resamplers being configured to resample the shaded color sample determined by said shader unit (Dietrich, Page 4. Paragraph [0050], lines 1-6.” Applicants respectfully disagree.

Paragraph [0049], lines 9-10, of Dietrich merely states that “[a]n optional sample expansion stage 154 generates multiple samples for each fragment.” There is no mention of multiple screen space resamplers in this cited passage of Dietrich. Thus, this passage of Dietrich fails to disclose “*N screen space resamplers*,” as recited in the independent claim 1.

Furthermore, paragraph [0050], lines 1-6, of Dietrich primarily describes the operation performed by the raster-processor (ROP) 155 on the output of the optional sample expansion stage 154, i.e., the individual samples, using the frame buffer memory 156. Thus, this cited passage of Dietrich does not disclose the operation of the optional sample expansion stage 154. In addition, there is no mention of “resampling a sample determined by the shader 153.” Thus, this cited passage of Dietrich does not disclose “*each of said screen space resamplers being configured to resample the shaded color sample determined by said shader unit*,” as alleged on page 3 of the Office Action.

The Office Action on page 4 further states that Wood discloses “different views such that resampling is performed N times in parallel for said 3D image. (Wood, Column 3, lines 16-25, and [Column] 4, lines 23-32).” Applicants respectfully disagree.

Column 3, lines 16-25, and column 4, lines 23-32, of Wood does disclose different views for forming a stereo pair for display on an autostereoscopic display

screen. However, these cited passages of Wood do not disclose or even mention resampling samples determined by a shader. Thus, these cited passages of Wood does not disclose “different views such that resampling is performed N times in parallel for said 3D image,” as alleged on page 4 of the Office Action.

Since the cited references of Dietrich and Wood do not disclose the limitations with respect to the claimed “*rasterizer*” and “*N screen space resamplers*,” these references even if combined do not teach all the limitations of the independent claim 1. Thus, the independent claim 1 is not obvious in view of the cited references of Dietrich and Wood. As such, Applicants respectfully request that the independent claim 1 be allowed.

The above remarks are also applicable to the independent claim 9, which recites limitations similar to those of the independent claim 1. Thus, the independent claim 9 is also not obvious in view of the cited references of Dietrich and Wood. As such, Applicants respectfully request that the independent claim 9 be allowed as well.

B. Patentability of Dependent Claims 2-8 and 10-14

Each of the dependent claims 2-8 and 10-14 depends on one of the independent claims 1 and 9. As such, these dependent claims include all the limitations of their respective base claims. Therefore, Applicants submit that these dependent claims are allowable for the same reasons as their respective base claims. Furthermore, these dependent claims may be allowable for additional reasons.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
Barenbrug et al.

Date: September 30, 2009

By: /thomas h. ham/
Thomas H. Ham
Registration No. 43,654
Telephone: (925) 249-1300